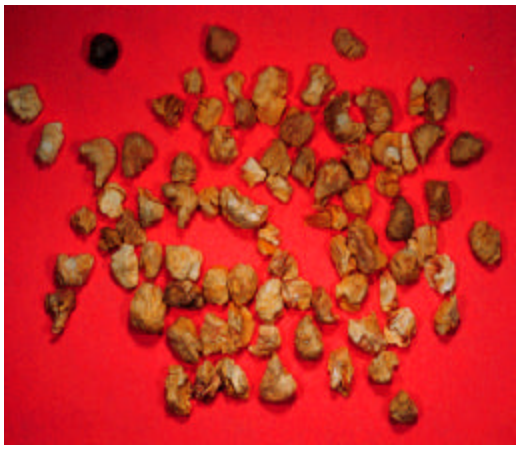
Aerial Mosquito Larvicide Application

Aerial treatment of wetland.

Aerial application of mosquito larvicide is the most effective mosquito control method used to treat breeding sites that are not easily accessible. Female mosquitoes frequently lay their eggs in hard-to-reach wet marshy areas where thick vegetation prevents County Vector Control Technicians from applying larvicide. As a result the County's Vector Control Program uses a helicopter to apply mosquito larvae control products to standing water bodies such as ponds and marshes to help prevent the spread of West Nile virus.

Larvicides and How They Work



Larvicide Granules.

Mosquito larvicide is used to stop mosquito larvae from maturing into biting adults that can carry diseases. The two larvicides used by the county for aerial applications are VectoLex (*Bacillus sphaericus*) and Teknar (*Bacillus thuringiensis israelensis* or Bti). They are naturally occurring bacteria that are attached to ground corncob and dropped into the water where mosquitoes breed. When mosquito larvae eat the bacteria, ulcers form in their digestive tracts, resulting in death. These larvicides were specifically designed to target mosquito larvae only. They are more effective than adult mosquito sprays, and are the favored method of mosquito control. VectoLex and Teknar do not affect adult mosquitoes and are effective in water bodies for up to 4 weeks. They were chosen for their low toxicity to species other than mosquitoes and are not harmful to other wildlife, pets or humans.

When And Where Do We Treat?

It is critical to control the mosquito population in the larval state. Adult mosquitoes carry diseases including West Nile virus that can pose a threat to public health. The Vector Control program routinely monitors adult mosquito populations. When surveillance efforts reveal an increase in the adult mosquito population, mosquito larvae control actions are taken. Larvicides are applied to known mosquito-breeding sites by land and by air.

When breeding sites cannot be accessed by land, a low-flying helicopter carrying a "hopper" drops the larvicide into hard-to-reach marshes, wetlands, coastal areas, and ponds with standing water. The pilot specifically targets thick stands of cattails and other vegetated areas where the larvae can hide from predators. The helicopter can apply the granules at a rate of 5-20 pounds per acre to targeted areas, and is more precise than other types of aircraft. Aerial applications are conducted monthly, and locations are always clearly marked. Warning signs are posted, and the treatment area is closed to the public during the treatment. Larvicide is only applied to natural waterways and is not applied near bodies of drinking water. To prevent any exposure, stay away from treatment areas during aerial applications. Aerial larviciding occurs only in inaccessible areas, so there is minimal exposure to humans and animals.

Helicopter carrying load of larvicide.

For more information on aerial larviciding or Vector Control's response to the West Nile virus please explore the www.SDFightTheBite.com website or call 888-551-INFO.